

What is claimed is:

1. A network environment supporting multiple peer-to-peer relay networks,
comprising:
 - 5 a first peer-to-peer relay network including N1 peer systems; and
 - a second peer-to-peer relay network including N2 peer systems;wherein each peer system in said first peer-to-peer relay network is connected to a
number of other peer systems in said first peer-to-peer relay network that is less than or
equal to a first connection limit,
 - 10 said first connection limit is greater than or equal to 2,
 - said first connection limit is less than or equal to N1-2,
 - each peer system in said first peer-to-peer relay network is configured to relay
data to peer systems connected to that peer system according to a first set of one or more
relay rules,
 - 15 each peer system in said second peer-to-peer relay network is connected to a
number of other peer systems in said second peer-to-peer relay network that is less than
or equal to a second connection limit,
 - said second connection limit is greater than or equal to 2,
 - said second connection limit is less than or equal to N2-2,
 - 20 each peer system in said second peer-to-peer relay network is configured to relay
data to peer systems connected to that peer system according to a second set of one or
more relay rules, and
 - at least one peer system in said first peer-to-peer relay network is also in said
second peer-to-peer relay network.
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2. The network environment of claim 1, further comprising:
 - a server connected to each peer system.
3. The network environment of claim 1, wherein:
 - 30 said first connection limit is the same as said second connection limit.

4. The network environment of claim 1, wherein:

said first set of one or more relay rules is different from said second set of one or more relay rules.

5 5. The network environment of claim 1, wherein:

all of the peer systems in said second peer-to-peer relay network are also in said first peer-to-peer relay network.

6. The network environment of claim 5, wherein:

10 at least one peer system in said first peer-to-peer relay network is not in said second peer-to-peer relay network.

7. The network environment of claim 5, wherein:

15 the peer systems in said first peer-to-peer relay network represent players in an online game.

8. The network environment of claim 7, wherein:

the peer systems in said second peer-to-peer relay network represent players in said online game that are on the same team.

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9. The network environment of claim 1, wherein:

data relayed in said first peer-to-peer relay network is network service data.

10. The network environment of claim 1, wherein:

25 data relayed in said first peer-to-peer relay network is data for an online environment.

11. The network environment of claim 10, wherein:

30 data relayed in said first peer-to-peer relay network is data for a lobby environment.

12. The network environment of claim 10, wherein:

data relayed in said second peer-to-peer relay network is data for a chat room in said lobby environment.

5 13. The network environment of claim 10, wherein:

data relayed in said second peer-to-peer relay network is data for an online game.

14. The network environment of claim 1, further comprising:

a third peer-to-peer relay network including N3 peer systems;

10 wherein each peer system in said third peer-to-peer relay network is connected to a number of other peer systems in said third peer-to-peer relay network that is less than or equal to a third connection limit,

said third connection limit is greater than or equal to 2,

said third connection limit is less than or equal to N3-2,

15 each peer system in said third peer-to-peer relay network is configured to relay data to peer systems connected to that peer system according to a third set of one or more relay rules, and

at least one peer system in said third peer-to-peer relay network is also in said first peer-to-peer relay network.

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15. The network environment of claim 14, wherein:

none of the peer systems in said third peer-to-peer relay network are in said second peer-to-peer relay network.

25 16. The network environment of claim 1, wherein:

at least one peer system is a network-enabled game console.

17. The network environment of claim 1, wherein:

at least two peer systems are connected through the Internet.

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18. A method of relaying data in a peer-to-peer relay network, comprising:

receiving data at a relaying peer system from a sending peer system connected to the relaying peer system in a peer-to-peer relay network;

selecting a peer-to-peer relay network corresponding to said received data,

5 wherein said selected peer-to-peer relay network has a corresponding set of one or more relay rules;

applying said set of one or more relay rules to select zero or more peer systems indicated by said set of one or more relay rules to which to relay said data; and

10 relaying said data to any peer systems selected by applying said set of one or more relay rules.

19. The method of claim 18, wherein:

said relaying peer system is in two or more peer-to-peer relay networks, and

15 said relaying peer system has respective sets of one or more connections to other peer systems for each peer-to-peer relay network to which said relaying peer system belongs.

20. The method of claim 18, wherein:

20 said relaying peer system stores a respective connection limit and a respective set of one or more relay rules for each peer-to-peer relay network to which said relaying peer system belongs,

a connection limit defines a number of other peer systems up to which a peer system is permitted to connect in that peer-to-peer relay network, and

25 a set of one or more relay rules defines how a peer system is to relay data to other peer systems connected to that peer system in that peer-to-peer relay network.

21. A peer system in a peer-to-peer relay network, comprising:

means for receiving data at a relaying peer system from a sending peer system connected to the relaying peer system in a peer-to-peer relay network;

means for selecting a peer-to-peer relay network corresponding to said received data, wherein said selected peer-to-peer relay network has a corresponding set of one or more relay rules;

means for applying said set of one or more relay rules to select zero or more peer systems indicated by said set of one or more relay rules to which to relay said data; and

means for relaying said data to any peer systems selected by applying said set of one or more relay rules.

22. The peer system of claim 21, wherein:

said peer system is in two or more peer-to-peer relay networks, and

said peer system has respective sets of one or more connections to other peer systems for each peer-to-peer relay network to which said peer system belongs.

23. The peer system of claim 21, wherein:

said peer system stores a respective connection limit and a respective set of one or more relay rules for each peer-to-peer relay network to which said peer system belongs,

a connection limit defines a number of other peer systems up to which a peer system is permitted to connect in that peer-to-peer relay network, and

a set of one or more relay rules defines how a peer system is to relay data to other peer systems connected to that peer system in that peer-to-peer relay network.

24. A computer program, stored on a tangible storage medium, for use in a peer system in a peer-to-peer relay network, the program comprising executable instructions that cause a computer to:

process received data at a relaying peer system from a sending peer system connected to the relaying peer system in a peer-to-peer relay network;

select a peer-to-peer relay network corresponding to said received data, wherein said selected peer-to-peer relay network has a corresponding set of one or more relay rules;

apply said set of one or more relay rules to select zero or more peer systems indicated by said set of one or more relay rules to which to relay said data; and

relay said data to any peer systems selected by applying said set of one or more relay rules.

25. The computer program of claim 24, wherein:

5 said peer system is in two or more peer-to-peer relay networks, and
 said peer system has respective sets of one or more connections to other peer systems for each peer-to-peer relay network to which said peer system belongs.

26. The computer program of claim 24, wherein:

10 said peer system stores a respective connection limit and a respective set of one of more relay rules for each peer-to-peer relay network to which said peer system belongs,
 a connection limit defines a number of other peer systems up to which a peer system is permitted to connect in that peer-to-peer relay network, and
 a set of one or more relay rules defines how a peer system is to relay data to other
15 peer systems connected to that peer system in that peer-to-peer relay network.